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claims 10 through 13, and also claims 17 and 20. Specifically, the Action both:

- objects to claims 10 through 13, but also rejects them over Taylor; and
- withdraws from consideration claims 17 and 20, but also rejects them over Osborne.

These inconsistencies are discussed below in detail.

#### Claims with ambiguous status

As noted above, claims 10 through 13 are rejected over Taylor — but such rejection appears only at the bottom of page 2 in the Action, where these claims are lumped together in a group with other claims. Wherever discussed specifically, claims 10 through 13 are specifically said to be allowable if suitably amended: this appears consistently in the summary sheet, under "Disposition of Claims" at line 7 of that sheet; and also at page numbered "8" of the Action, in paragraph numbered "7" on that page.

Furthermore these four claims are omitted from a more-specific enumeration of rejected claims. That enumeration appears at the top of page 3 of the Action. (At that point several claims are said to be anticipated by Osborne, but from all the context evidently the intent was to reject them over Taylor.)

Accordingly the Applicants believe that these claims 10 through 13 would be allowable if amended as specified in the Action. Applicants respectfully reserve the right to so amend them; however, such amendment is not being undertaken now because the rejections of the base claims are believed to be clearly inapposite as discussed below.

Analogously as to claims 17 and 20, the Action says in the summary sheet, at line 4a, that these claims are withdrawn from consideration — and the same is stated at page 2 of the Action, in the section numbered "2" — but at the same time the Action at page 5, in the section numbered "4", declares a definite rejection of these same claims.

The Applicants respectfully object to these inconsistent positions with respect to claims 17 and 20. Clearly if these two claims have already been examined and searched — sufficiently for issuance of a rejection — then it is unreasonable to restrict them out of this case, notwithstanding the Applicants' agreement to restrict without traverse.

Such restriction would represent a gross waste of administrative resources by the United States Patent & Trademark Office, as well as an irrational waste of the assignee's money. Accordingly, in view of the fact that examination of these claims is a *fait accompli* the Applicants respectfully ask that these claims be restored "for consideration" — namely, the consideration that they have already received.

It is stressed that Applicants do not traverse the restriction requirement on the merits. Applicants ask for reinstatement of these claims solely on the basis that examination has already been conducted.

#### Section 102 rejections

CLAIMS 1, 4, 9 THROUGH 15, 22 THROUGH 27, AND 29 — In the Official Action it is said that all these claims are anticipated by Taylor.

PLEASE NOTE that this position is stated in the Action at bottom of page 2, in paragraph "3" — whereas

in the very next paragraph (at the top of page 3) the rejection is instead said to be over Osborne.

Applicants' undersigned attorney is unable to determine with certainty which reference is actually intended. Nevertheless, since almost all teachings of the Taylor reference are repeated verbatim by Osborne — and with the same illustrations and callouts — it is believed that the comments below are correct regardless of which of the two references be considered.

In support of the rejection, it is said in the Official Action (at page 3, third paragraph) that the reference discloses apparatus and method comprising a spittoon with (emphasis added):

"A generally planar shelf mounted for rocking motion between the first and second position (Fig.3: element 70)".

It is very clear, however, that this statement is factually in error, for neither Osborne nor Taylor shows, describes or suggests any "generally planar shelf" (or any "shelf" at all) that is part of a spittoon.

Furthermore the cited element 70 in Fig. 3 of each of those two references is not at all planar, or even generally planar, but rather is uniformly described as an annular surface of a wheel, specifically (but figuratively) a "Ferris wheel". Hence the above-quoted statement in the Official Action is wholly inapposite to the Applicants' claim recitation of a generally planar shelf, and this rejection must necessarily fail.

Still further, and still as to the same claim group, it is said in the Official Action, at lower center on page 3, that the cited reference teaches (emphasis added):

"A temporary spittoon arranged to move between first and second position (Fig.3: element 70), . . . arranged in the first position such that the ink drops are ejected onto a surface of the temporary spittoon, [and] to transfer the ink to the spittoon when in the second position (Fig.3, Column 8: line 2-58) . . .

"A reciprocating shuttle arranged to move between first and second position . . . (Fig.3: element 70. 64, 65)."

It will be clear that this passage in the Official Action refers to the rotary structure 70 shown in both references.

Neither reference, however, offers the slightest suggestion that the rotary "Ferris wheel" temporary spittoon either is "reciprocating" or acts as a "shuttle". The term "reciprocating" specifically requires change of direction, at least from time to time if not periodically; while the word "shuttle" is universally defined to include a "back and forth" motion like the original use of that word for describing part of a loom.

To the contrary, Figs. 3 through 5 of both references each show a single-headed arrow, indicating unidirectional motion. No text in either patent conflicts with this understanding.

Indeed the purpose and function of the inventions taught in both references is wholly consistent with unidirectional motion. Such motion would certainly be more straightforward to implement than reciprocating or shuttling motion.

Applicants respectfully note that these same points were raised in an earlier amendment, but evidently disregarded. In the first response it was said (emphasis added):

"Osborne's intermediate spittoon configurations all appear to be rotary, having neither a shuttling action nor any sort of reciprocation.

"Osborne's structures identified in the Official Action as a 'shuttle' are actually pen-capping devices. Moreover, certain of these claims refer to plural orientations of the intermediate spittoon; but Osborne's intermediate spittoon is cylindrically sym-

metrical, and so does not pass through distinguishably different 'orientations' as it rotates."

Furthermore the cited features "64, 65" of the Taylor and Osborne references have practically nothing to do with any action of a temporary spittoon in transferring ink. Rather, these features of the Taylor/Osborne mechanism are pen-wiping modules.

Further yet, and still regarding the same claim group, it is indicated in the Official Action (at page 4, center) that the cited reference anticipates Applicants' claims because the reference teaches that (emphasis added):

"the temporary spittoon comprises a flexible material fixed mounted to the shuttle (Column 5: line 1-2), the temporary spittoon being arranged to bend or deform between the first and second orientations and (Column 5: line 1-8) temporary spittoon is manufacture from a plastic material (Column 5: line 5-8) . . . ."

With respect, this statement too is factually in error. While the Taylor/Osborne apparatus has a somewhat pliable edge — specifically enabling it to effect a seal (keeping ink out of the mechanism) — there is no slightest suggestion that the spittoon is "arranged to bend or deform" between its first and second orientations as Applicants' claims recite.

Note that the "first and second orientations" are those same positions of Applicants' invention where the temporary spittoon receives and discharges, respectively, the excess ink. While slightly pliable, the Taylor/Osborne device is given this property only for the sealing purpose stated, not for enabling it to operate between two functional positions as the Applicants claim.

Finally, it is also said in the Official Action that (emphasis added):

"the shelf is substantially rigid (since substantially rigid is not definitely rigid, elastomeric material in Taylor to read on the claim limitation)."

While it may be true that Taylor discloses some structure of elastomeric material, and Applicants will not debate whether that structure is "substantially rigid", the structure is not a shelf. Therefore the Taylor structure fails to answer to Applicants' claims that are under discussion.

CLAIMS 5, 6, 17, 19 AND 20 — In the Official Action it is further said (at page 5, in section 4 of the Action) that these claims are anticipated by Osborne. This assertion is supported by a statement (paragraphs bridging pages 5 and 6) that (emphasis added):

"the temporary spittoon [is] mounted on a shuttle, the shuttle being arranged to move the temporary spittoon between the first and second position (Fig.3)";

and further that the Osborne apparatus includes a "reciprocating shuttle . . . (Fig.3: element 70. 64, 65)".

As already pointed out, however, the Osborne patent does not include a spittoon "mounted on a shuttle" and indeed seems not to include any "shuttle" (a structure inherently characterized by back-and-forth motion) or "reciprocating shuttle" (a structure explicitly characterized by back-and-forth motion). Although the cited element 70 does move ink between two positions, there is no teaching in Osborne or Taylor that this be done by a "shuttle"; and the unidirectional arrows in the drawings strongly suggest absence of any shuttle.

### Section 103 rejections

In the Official Action it is also said, at page 7 (in section 5 of the Action) that claims 2 and 3 are unpatentable over Taylor in view of Cameron. This rejection is supported by an argument that Taylor teaches all the structure except the spacing of the printhead from the temporary spittoon; and that Cameron would make the spacing obvious.

For the reasons stated below Applicants respectfully traverse. Cameron's spacing is not between the head and a spittoon, but rather between the head and a Venturi chamber.

Cameron's Venturi structures are not any kind of spittoon, but rather the opposite: as he explains, they are special-purpose channels that have the function of inducing smooth flow of the ink on through to their spittoons. From the well-known term "Venturi" and from this described function, it is clear that the flow through the Venturis is as nearly as possible without contact between the ink and the channels.

The reason for choosing a particular spacing between each printhead and its respective Venturi is of course to optimize the ink-accelerating function of the Venturi. The overhead spacing is chosen to provide the best operation of the fluid flow through the chamber.

No such advanced or sophisticated fluid-flow relationship is involved in the present invention, where the spacing simply avoids spatter and facilitates complete transfer of ink solids. Hence the reasoning behind Osborne's choice of spacing above his Venturi channels is inapplicable to the present Applicants' invention.

Accordingly there would be no reason for a person skilled in this field to adopt Osborne's Venturi spacing for a reciprocating-shelf temporary spittoon. The combination is therefore not obvious, and the rejection is inapposite.



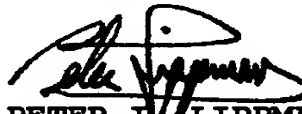
The dimensions of claims 2 and 3 were obtained by experimentation and observation, not from any theory relating to Venturi flows. Furthermore Osborne fails to teach these specific values.

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request the Examiner's favorable reconsideration and allowance of all the claims now standing in this case.

It is respectfully requested that, should there appear any further obstacle to allowance of the claims herein, the Examiner telephone the undersigned attorney to try to resolve the obstacle.

Respectfully submitted,



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